CLAIMS

1. A conductive resin composition comprising:

a conductive filler (A),

a urethane-modified epoxy (meth)acrylate (B) obtained by reacting an epoxy (meth)acrylate (b-1), which is obtained by the addition reaction of an epoxy resin having an aromatic cyclic structural unit and/or an aliphatic cyclic structural unit and a (meth)acrylic acid, with a polyisocyanate (b-2),

a (meth)acrylate (C) having a number average molecular weight of 500 to 10,000, which contains 20 to 80% by weight of an aromatic cyclic structural unit and/or an aliphatic cyclic structural unit and contains no active hydrogen atom, and

the other ethylenically unsaturated monomer (D) which is copolymerizable with the urethane-modified epoxy (meth)acrylate (B) and the (meth)acrylate (C).

2. A conductive resin composition according to claim 1, wherein the epoxy resin contains 30 to 90% by weight of an aromatic cyclic structural unit and/or an aliphatic cyclic structural unit.

3. A conductive resin composition according to claim 1, wherein the epoxy resin is a novolac type epoxy resin.

4. A conductive resin composition according to claim 1, wherein the (meth)acrylate (C) is obtained by reacting a reaction product, which is obtained by reacting a polyisocyanate having an aromatic cyclic structural unit and/or an aliphatic cyclic structural unit with a polyetherpolyol having an aromatic cyclic structural unit and/or an aliphatic cyclic

structural unit under the conditions that an isocyanate group of the polyisocyanate is in excess of a hydroxyl group of the polyol, with a (meth)acrylate having a hydroxyl group.

5. A conductive resin composition according to claim 4, wherein the polyetherpolyol having an aromatic cyclic structural unit and/or an aliphatic cyclic structural unit is an alkylene oxide adduct of a multinucleate phenolic compound.

6. A conductive resin composition according to claim 1, wherein the (meth)acrylate (C) is obtained by reacting a polyetherpolyol having an aromatic cyclic structural unit and/or an aliphatic cyclic structural unit with a (meth)acrylic acid.

7. A conductive resin composition according to claim 4, wherein the polyetherpolyol having an aromatic cyclic structural unit and/or an aliphatic cyclic structural unit is an alkylene oxide adduct of a multinucleate phenolic compound.

8. A conductive resin composition according to claim 1, wherein a weight ratio of the urethane-modified epoxy (meth)acrylate (B) to the (meth)acrylate (C) is from 95/5 to 50/50.

9. A conductive resin composition according to claim 1, wherein the content of the conductive filler (A) is from 50 to 90% by weight.

10. A conductive resin composition according to claim 1, wherein the content of the conductive filler (A) is from 50 to 90% by weight, the content of the urethane-modified epoxy (meth)acrylate (B) is from 6 to 18% by weight, the content of the (meth)acrylate (C) is from 2 to 8% by weight, and the content of the other ethylenically unsaturated monomer

(D) is from 2 to 25% by weight.

11. A conductive resin composition according to claim 1, wherein the ethylenically unsaturated monomer (D) is an aromatic vinyl monomer.

12. A method for producing a conductive resin composition, which comprises:

(1) the first step of kneading a conductive filler (A), an epoxy (meth)acrylate (b-1) obtained by the addition reaction of an epoxy resin having an aromatic cyclic structural unit and/or an aliphatic cyclic structural unit and a (meth)acrylic acid, a polyisocyanate (b-2), a (meth)acrylate (C) having a number average molecular weight of 500 to 10,000, which contains 20 to 80% by weight of an aromatic cyclic structural unit and/or an aliphatic cyclic structural unit and contains no active hydrogen atom, and an ethylenically unsaturated monomer (D), and

(2) the second step of reacting the kneaded mixture obtained in the first step with the (meth)acrylate (b-1) and the polyisocyanate (b-2) at a temperature of room temperature to 80°C, thereby causing chain elongation.

13. A separator for a fuel cell obtained by molding the conductive resin composition according to any one of claims 1 to 10.